



LIST OF REFERENCES CITED BY APPLICANT

(Use Several Sheets if Necessary)

DOCKET NO.: 9373/1G811US1 SERIAL NO: 09/722,602  
APPLICANT: Frances H. ARNOLD, et al.  
FILING DATE: November 27, 2000

## U.S. PATENT DOCUMENTS

<u>U.S. PATENT DOCUMENTS</u>					
<u>*EXAMINER INITIALS</u>	<u>DOCUMENT NUMBER</u>	<u>DATE</u>	<u>NAME</u>	<u>CLASS</u>	<u>SUBCLASS</u>
<i>YCP</i>	1. 6,090,604	07/18/00	Golightly et al.	435	190

## FOREIGN PATENT DOCUMENTS

\*EXAMINER INITIALS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO

## OTHER REFERENCES

(INCLUDING AUTHOR, TITLE DATE, PERTINENT PAGES, ETC.)

**\*EXAMINER  
INITIALS**

2. Rogers, M.S. et al., *Characterization of the Active Site of Galactose Oxidase and Its Active Site Mutational Variants Y495F/H/K and W290H by Circular Dichroism Spectroscopy*. *Inorganica Chimica Acta*.

EXAMINER: John

DATE CONSIDERED: 1.10.2002

**\*EXAMINER:**

Initial reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

LIST OF REFERENCES CITED BY APPLICANT

(Use Several Sheets if Necessary)

DOCKET NO.: 9373/1G811-US1 SERIAL NO: 09/722,602  
APPLICANT: Frances H. ARNOLD, et al.  
FILING DATE: November 27, 2000

## U.S. PATENT DOCUMENTS

SEARCHED DOCUMENTS						
<u>*EXAMINER INITIALS</u>	<u>DOCUMENT NUMBER</u>	<u>DATE</u>	<u>NAME</u>	<u>CLASS</u>	<u>SUBCLASS</u>	<u>FILING DATE</u>
yp	1. 5,965,408	10/12/99	Short	435	91.1	
yp	2. 5,837,458	11/17/98	Minshull et al.	435	6	
yp	3. 5,830,721	11/03/98	Stemmer et al.	435	172.1	
yp	4. 5,811,238	09/22/98	Stemmer et al.	435	6	
yp	5. 5,741,691	04/21/98	Arnold et al.	435	197	
yp	6. 5,605,793	02/25/97	Stemmer	435	6	

## FOREIGN PATENT DOCUMENTS

SEARCHED PATENT DOCUMENTS						TRANSLATION	
*EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
UV	7. EP 932,670	08/01/00	EP0	C12N	15/00	X	
	8. EP 752,008	02/25/97	EP0	C12Q	1/68	X	
	9. WO 00/18906	04/06/00	PCT	C12N	15/10	X	
	10. WO 00/09679	02/24/00	PCT	C12N	15/10		(Abstract) X
	11. WO 00/04190	01/27/00	PCT	C12Q	1/68	X	
	12. WO 00/00632	01/06/00	PCT	C12P	2/06	X	
	13. WO 98/42832	10/01/98	PCT	C12N	15/09	X	
	14. WO 98/31837	07/23/98	PCT	C12Q	1/68	X	
	15. WO 97/35966	10/02/97	PCT	C12N	15/00	X	
	16. WO 97/20078	06/05/97	PCT	C12Q	1/68	X	
	17. WO 95/22625	08/24/95	PCT	C12Q	1/68	X	
	18. WO 98/41653	9/24/98	PCT				X

## OTHER REFERENCES

REVIEW REFERENCES  
(INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

\*EXAMINER  
INITIALS

19 Adanyi, N., et al., European Food Research and Technology, 1999; 209:220-226  
20 Aisaka, K., et al., Agric. Biol. Chem., 1981; 45(10):2311-2316  
21 Amaral, D., et al., Methods Enzymol., 1966; 9:87-92  
22 Anfinsen, C. B., Science, 1973; 181:223  
23 Arkin, A., et al., Proc. Natl. Acad. Sci. USA, 1992; 89:7811  
24 Arnold, F. H., Accounts Chem. Res., 1998; 31:125-131

Yur 1.10.2002

## LIST OF REFERENCES CITED BY APPLICANT

(Use Several Sheets if Necessary)

DOCKET NO.: 9373/1G811-US1 SERIAL NO: 09/722,602  
APPLICANT: Frances H. ARNOLD, et al.  
FILING DATE: November 27, 2000

25. Arnold, F.H., et al., *Adv. Biochem. Eng. Biotechnol.*, 1997; 58:1-14  
26. Arnold, F.H., *FASEB J.*, 1993; 7:744-749  
27. Arts, S.J.H.F., et al., *Synthesis-Stuttgart*, 1997; 6:597-613  
28. Avigad, G., *Arch. Biochem. Biophys.*, 1985; 239(2):531-537  
29. Avigad, G., *Anal. Biochem.*, 1978; 86:470-476  
30. Avigad, G., et al., *J. Biol. Chem.*, 1962; 237:2736-2743  
31. Baron, A. J., et al., *J. Biol. Chem.*, 1994; 269:25095-25105  
32. Beckman, R. A., et al., *Biochemistry*, 1994; 24:5810  
33. Bernarderz-Clark, E. D.; Georgiou, G. *Inclusion Bodies and Recovery of Proteins from the Aggregated States.* In *Protein Refolding*; Bernarderz-Clark, E. D., Georgiou, G., Eds.; ACS: Washington, D. C. p. 1-20 (1990)  
34. Better, M., et al., *Science*, 1988; 240:1041  
35. Borman, C. D., et al., *J. Biol. Inorg. Chem.*, 1997; 2:480-487  
36. Bradford, M., *Anal. Biochem.*, 1978; 72:248-254  
37. Calderhead, D. M., et al., *J. Biol. Chem.*, 1988; 263:12171-12174  
38. Caldwell, R. C.; Joyce, G. F. *PCR Methods Applic.* 2, 28 (1992)  
39. Calvin, N.M., et al., *J. Bacteriol.*, 1988; 170(6):2796-2801  
40. Carbon, J., Clarke, L.; Ilgen, C.; Ratzkin, B. *The Construction and Use of Hybrid Plasmid Gene Banks in Escherichia coli.* In *Recombinant Molecules: Impact on Science and Society*; Beers, R. F. J., Bassett, E. G., Eds; Raven Press: New York, pp 355-378 (1977)  
41. Castelli, M. C. et al., *Gene*, 1994; 142:113  
42. Chang et al., *Nature Biotechnol.*, 1999; 17:793-797  
43. Chen, K. & Arnold, F.H., *Proc. Natl. Acad. Sci. USA*, 1993; 90:5618-5622  
44. Cherry, J.R., et al., *Nature Biotechnol.*, 1999; 17:379-384  
45. Christians et al., *Nature Biotechnol.*, 1999; 17:259-264  
46. Cleland, J. L., et al., *Bio/Technology*, 1990; 8:1274  
47. Crameri, A., et al., *Nature*, 1998; 391:228-231  
48. Crameri, A., et al., *Nature Biotechnol.*, 1997; 15:436-438  
49. Crameri, A., et al., *Nature Biotechnol.*, 1996; 14:315-318  
50. Crameri, A., et al., *Nature Med.*, 1996; 2:100-103  
51. Crameri, A., et al., *Angew. Chem. Int. Ed. Engl.*, 1980; 19:546-547  
52. De Sutter, et al., *GENE*, 1994; 141:163  
53. Delagrange et al., *Bio/Technology*, 1993; 11:1548  
54. Delagrange et al. *Protein Engineering*, 1993; 6:327  
55. Dower, W.J., et al., *Nucleic Acids Res.*, 1988; 16(13):6127-6145  
56. Dunford, H.B., *Peroxidases in Chemistry and Biology*, 1991; Vol 2. pp. 1-24  
57. Egorov, A. M., et al., *Ann. N. Y. Acad. Sci.*, 1991; 646:35  
58. Fiedler, K. & Simons, K., *Cell*, 1995; 81:309-312  
59. Fitzgerald et al., *Biochemistry*, 1994; 33:3807  
60. Gahmberg, C. G., and Tolvanen, M., *Methods Enzymol.*, 1994; 230:32-44  
61. Gajhede, M., et al., *Nature Struct. Biol.*, 1997; 4:1032  
62. Gazaryan, I.G., *LABPV Newsletters*, 1994; 4:8-15  
63. Gietz, D., et al., *Yeast*, 1995; 11:355  
64. Gillam, E.M., et al., *Arch. Biochem. Biophys.*, 1995; 319:540-550

1.10.2002

## LIST OF REFERENCES CITED BY APPLICANT

(Use Several Sheets if Necessary)

DOCKET NO.: 9373/1G811-US1 SERIAL NO: 09/722,602  
APPLICANT: Frances H. ARNOLD, et al.  
FILING DATE: November 27, 2000

65. Giver, L., et al., Proc. Natl. Acad. Sci. USA, 1998; 95:12809-12813  
66. Giver, L., and Arnold, F.H. Curr. Opinion Chem. Biol., 1998; 2: 335-338  
67. Goldman, E. R. and Youvan D. C., Bio/Technology, 1992; 10:1557  
68. Goodin, D. B., et al., Biochemistry, 1991; 30:4953  
69. Goshorn, S. C., et al., Cancer Res., 1993; 53:2123  
70. Gramm, H. et al., Proc. Natl. Acad. Sci. USA, 1992; 89:3576  
71. Guengerich et al., Meth. Enzymol., 1996; 272:35-44  
72. Gussow, D. & Clackson, T., Nucleic Acids Res., 1989; 17:4000-4000  
73. Hamilton et al., J. Am. Chem. Soc., 1978; 100(6):1899-1912  
74. Hamilton, G.A., de Jersey, J., and Adolf, P.K. (1973) Galactose oxidase : The complexities of a simple enzyme., in King, T.E., et al. Eds., Oxidases and related redox enzyme, University Park Press, Baltimore, MD, 103-124  
75. Haschke, R.H. & Friedhoff, J.M., Biochim. Biophys. Res. Commun., 1978; 80(4):1039-1042  
76. Helenius, A., Mol. Biol. Cell., 1994; 5:253-265  
77. Hermes, J. D. et al., Proc. Natl. Acad. Sci. USA, 1990; 87:696  
78. Ito et al., Methods Enzymol., 1995, 258:235-262  
79. Ito et al., J. Mol. Biol., 1994; 238:794-814  
80. Ito et al., Nature, 1991; 350:87-90  
81. Joo et al., Chem. Biol., 1999; 6:699-706  
82. Joo et al., Nature, 1999, 399:670-673  
83. Khosla et al., Bio/Technology, 1990; 8:849-853  
84. Kiba et al., J. Chromatogr., 1989; 463:183-187  
85. Klibanov et al., Biochem. Biophys. Res. Commun., 1982; 108:804-808  
86. Knappik, A.; Pluckthun, A, Protein Eng., 1995; 8(1):81-89  
87. Koroleva et al., Prikl. Biokhim. Mikrobiol., 1983;19(5): 632-637  
88. Kosman, D.J. (1984) Galactose oxidase., in Lontie, R., Eds., Copper proteins and copper enzymes. Vol. 2., CRC Press, Boca Raton, Fla., 1-26  
89. Koster et al., Synthesis, 1982; 650-652  
90. Kuchner, O., and Arnold, F.H., Trends Biotechnol., 1997; 15:523-530  
91. Lei et al., J. Bacteriol., 1987; 169:4379  
92. Liu et al., J. Am. Chem. Soc., 1999; 121:466-467  
93. Lis, M., and Kuramitsu, H.K. Antimicrob. Agents Chemother., 1997; 41(5):999-1003  
94. Leung, D. W. et al., Technique, 1989; 1(1):11-15  
95. Mannino et al., Italian Journal of Food Science, 1999, 11:57-65  
96. Maradufu et al., Carbohydr. Res., 1974; 32:93-99  
97. Maradufu et al., Canad. J. Chem., 1971; 49:3429-3436  
98. Marrs, B, L, IBC's Fifth Annual World Congress on Enzyme Technologies, March 1, 2000.  
99. Martin, I. G., Macias, E. M., Sanchez, J. S., and Rivera, B. G. (1998) Food Chemistry 61, 281-286  
100. Martin, B.D., Linhardt, R.J., and Dordick, J.S. (1998) Highly swelling hydrogels from ordered galactose-based polyacrylates., Biomaterials, 19(1-3), 69-76  
101. Martineau, P. et al., J. Mol. Biol., 1998; 20:117-127  
102. Mazur, A. W., and Hiler, G. D., J. Org. Chem., 1997; 62:4471-4475  
103. Mazur, A. in Enzymes in Carbohydrate Synthesis (1991) Bednarski, M. D. and Simon, E. S. Eds. pp. 99-110

George Bush

1.10.2002

LIST OF REFERENCES CITED BY APPLICANT

(Use Several Sheets if Necessary)

DOCKET NO.:

9373/1G811-US1

SERIAL NO: 09/722,602

APPLICANT:

Frances H. ARNOLD, et al.

FILING DATE:

November 27, 2000

104. McPherson, M.J., Stevens, C., Baron, A.J., Ogel, Z.B., Seneviratne, K., Wilmot, C., Ito, N., Brocklebank, I., Phillips, S.E.V., and Knowles, P.F. (1993) Galactose oxidase: Molecular analysis and mutagenesis studies.. Biochem. Soc. Transact., 21:752-756

105. McPherson, M.J., et al. J. Biol. Chem., 1992; 267(12):8146-8152

106. Mendonca, M.H., and Zancan, G.T., Arch. Biochem. Biophys., 1988; 266(2):427-434

107. Mendonca, M. H., and Zancan, G. T. Arch. Biochem. Biophys., 1987; 252(2):507-514

108. Miele, R.G., et al. J.Biol.Chem., 1999; 274 7769-7776

109. Minshull and Stemmer, Curr. Opin. Chem. Biol., 1999; 2:284-290

110. Mitraki, A.; King, J. FEBS Lett., 1992; 307(1):20-25

111. Miyazaki, K., et al., J.Mol.Biol., 2000; 297:1015-26

112. Moore, J.C., et al., J. Mol. Biol., 1997; 272 336-347

113. Moore, J. C., et al., Nature Biotechnol., 1996; 14:458

114. Nagayama, Y., et al., J. Biol. Chem., 1998, 273:33423-33428

115. Nakagawa, S., et al., Biosci. Biotech. Biochem., 1996; 60(3):415-420

116. Ness et al., Nature Biotechnol., 1999; 17:893-896

117. Oiphant, A. R. et al., Gene, 1986; 44:177-183

118. Ortlepp, S. A., et al., J. Biotechnol., 1989; 11:353-364

119. Ostermeier, M., et al., Eukaryotic J. Biol. Chem., 1996; 271:10616

120. Parekh, R., et al., Protein Express. Purif., 1995; 6:537-545

121. Patten et al., Curr. Opin. Biotechnol., 1997; 8:724-733

122. Rathore, D., et al., FEBS Lett., 1996; 392:259-262

123. Reynolds, M. P., et al., J. Biol. Inorg. Chem., 1997; 2:327-335

124. Rodriguez-Lopez, J.N., et al., J.Biol.Chem., 1995; 271:4023-4030

125. Romanos, M.A., et al., Yeast, 1992; 8:423-488

126. Root, R. L., et al., J. Am. Chem. Soc., 1985; 107:2997-2999

127. Said, I. T., et al., Histol. Histopathol., 1999; 14:351-357

128. Savenkova, M. I., et al., Biochemistry, 1998; 37:10828-10836

129. Saysell, C.G., et al., JBIC, 1997; 2:702-709

130. Schatz, P.J., et al., Annu. Rev. Genet., 1990; 24:215-248

131. Schein, C. H., Bio/Technology, 1990; 8:308-317

132. Schlegel, R.A., Carbohydr. Res., 1968; 7:193-199

133. Shafikhani, S., et al., Biotechniques, 1997, 23(2):304-310

134. Shao, Z.X., et al., Nucleic Acids Res., 1998; 26:681-683

135. Shindler, J. S.; Childs, R. E.; Bardsley, W. G. Eur. J. Biochem. 65, 325 (1976)

136. Sirotnik, K. J. Theor. Biol. 123, 261 (1986)

137. Smith, A.T., & Veitch, N.C. (1998) Curr.Opin.Chem.Biol. , 2:269-278

138. Smith, A. T., et al., J. Biol. Chem., 1990; 265:13335-13343

139. Stemmer, W.P.C., Nature, 1994; 370:389-391

140. Stemmer, W. P. C., Proc. Natl. Acad. Sci. USA, 1994; 91:10747-10751

141. Stemmer, W. P. C., et al., Biotechniques, 1993; 14(2):256-265

142. Studier, F. W., et al., Meth. Enzymol., 1990; 185:60

143. Szabo, E. E., et al., Biosensors & Bioelectronics, 1996; 11:1051-1058

144. Tams, J. W., et al., FEBS Lett., 1998; 421:234-236

 1.10.2002

## LIST OF REFERENCES CITED BY APPLICANT

(Use Several Sheets if Necessary)

DOCKET NO.: 9373/1G811-US1 SERIAL NO: 09/722,602  
APPLICANT: Frances H. ARNOLD, et al.  
FILING DATE: November 27, 2000

145. Thatcher, D. R.; Hitchcock, A. Protein Folding in Biotechnology. In *Mechanisms of Protein Folding*; Pain, R. H., Ed.; IRL Press: Oxford p. 229-261 (1994)

146. Tkac, J., et al., *Biotechnology Techniques*, 1999; 13:931-936

147. Tressel, P.S., et al., *Methods Enzymol.*, 1989; 89:163-171.

148. Tressel, P., et al., *Anal. Biochem.*, 1980; 105:150-153

149. Tressel, P.S., "Chemical, Kinetic, and Spectral Properties of the Catalytic Mechanism of Galactose Oxidase," Thesis, State University of New York at Buffalo, June 1980.

150. Vega, F. A., et al., *Anal. Chim. Acta*, 1998; 373:57-62

151. Vrbova, E., Peckova, J., and Marek, M. (1992) *Collection of Czechoslovak Chemical Communications* 57, 2287-2294

152. Wachter, R. M., and Branchaud, B. L., *J. Am. Chem. Soc.*, 1996; 118:2782-2789

153. Welinder, K. G., *Eur J. Biochem*, 1979; 96:483-502

154. Wetzel, R., et al., *Bio/Technology*, 1991; 9:731

155. Whittaker, M.M., et al., *Biochemistry*, 1998; 37:8426-8436

156. Whitaker, M. W., et al., *J. Biol. Chem.*, 1988; 263:6074-6080

157. Yang, G. Y., and Shamsuddin, A. M., *Histol. Histopathol.*, 1996; 11:801-806

158. Yano, T., et al., *Proc. Natl. Acad. Sci. USA*, 1998; 95:5511-5515

159. You, L., and Arnold, F.H., *Protein Eng.*, 1996; 9:77-83

160. Zhang, J.H., et al., *Proc. Natl. Acad. Sci. USA*, 1997; 94:4504-4509

161. Zhang, J. X.; Goldenberg, D. P., *Biochemistry*, 1993; 32:14075

162. Zhao, H M. & Arnold, F.H., *Protein Eng.*, 1999; 12:47-53

163. Zhao, H M., et al., *Nature Biotechnol.*, 1998; 16:258-261

164. Zhao, H M.; Arnold, F. H., *Nucleic Acids Res.*, 1997; 25:1307

165. Zhao H., and Arnold, F.H. , *Nucleic acids Res.*, 1997; 25(6):1307-1308

166. Zhao, H , and Arnold, F.H., *PNAS. USA*, 1997; 94:7997-800

**EXAMINER**

DATE CONSIDERED: 1.10.2022

\*EXAMINER:

Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.